TABLE OF CONTENTS

SECTION                                      PAGE
Introduction                                    1
Service Notes                                  1
AM Tuner                                      1
FM Tuner                                      2
Phono and Pre-amplifier                       3
Main amplifier                                 3
Audio Trouble Analysis                        3
Test Equipment Required for Servicing         4
AM Alignment Procedure                        5
FM Alignment Procedure                        5
Audio Adjustment                              6
Parts List                                     17
Technical Specifications                      25

LIST OF ILLUSTRATIONS

FIGURE                                      PAGE
  1. Dial Stringing                           6
  2. Front Panel Adjustment and Component Locations  7
  3. Main Chassis Component Locations (Top View)  7
  4. Rear Panel Adjustment and Component Locations  8
  5. Main Chassis Component Locations (Bottom View)  8
  6. FM/AM Tuner Assembly P100 Component Locations  9
  7. Phono Amplifier Assembly P300 Component Locations  9
  8. Tape Moni, Mono, Loudness and Muting Switch Unit
      Assembly P400 Component Locations            10
  9. Tone Amplifier Assembly P500 Component Locations  10
10. Power Amplifier Assembly P600 Component Locations  11
11. Power Supply Assembly P800 Component Locations  12
12. Schematic Diagram                        13-14
13. Exploded Mechanical Diagram              15-16

TABLE                                       PAGE
  1. Test Equipment Required for Servicing      4
INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2015 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instruction should be read carefully. No attempt should be made to proceed without a good understanding of the operation in the receiver.

The parts list furnish information by which replacement part may be ordered from the Marantz Company. A simple description is included for parts which can be usually be obtained through local suppliers.

1. Service Notes

As can be seen from the circuit diagram, the chassis of Model 2015 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. FM/AM Tuner .................................................. mounted on P. W. Board P100
2. MPX Stereo Indicator ....................................... mounted on P. W. Board P200
3. Phono Amplifier ................................................ mounted on P. W. Board P300
4. Tape Mon, Mono, Loudness and Muting Switch Unit .................................. mounted on P. W. Board P400
5. Tone Amplifier ................................................ mounted on P. W. Board P500
6. Power Amplifier ................................................ mounted on P. W. Board P600
7. Temperature Compensation unit ................................ mounted on P. W. Board P700
8. Power Supply ................................................ mounted on P. W. Board P800

2. AM Tuner

All components except ferrite bar antenna are mounted on a printed circuit board P100.

The AM signals induced in a ferrite bar antenna are applied to the base of converter transistor H113 through a capacitor of C171, while the local oscillator voltage is injected to the emitter of H113 through a capacitor C172. Both AM signals and oscillating voltage are mixed at the base-emitter junction and converted into 455KHz intermediate frequency. The resulting IF signal is applied to the first IF transformer L116 consisting of one ceramic filter and two tuned circuits.

The output of L116 is led to the transistor H104 which in turn apply its output to the transistor of next stage H105. The fully amplified IF output is then applied to the diode H123 to detect audible signal through the detector transformer L117. The detected audio signal is filtered and the final audio output is obtained from the pin terminal J118 and applied to the function switch.

The DC component of the detected IF signal is used as a AGC voltage to control emitter current of H104 through the resistor R185. A part of IF signal output is also applied to the diode H124 through a capacitor C180 and rectified to obtain DC current for energizing the AM signal strength meter M001.

2.1 Suggestions for AM Tuner trouble shooting

Check for broken AM bar antenna, next try to tune station by rotating fly-wheel tuning knob slowly and observe the AM signal strength meter whether it deflects or not. If the signal strength meter gives a deflection at several frequencies received, no failure may exist in the stages at least preceding final IF transformer L117. Next connect a oscilloscope to the pin terminal J118 and check for audio signals with the tuning meter deflected. If the signal strength meter does not deflect, check the local oscillator circuit. Normal oscillating voltage at the hot end of the oscillator tuning capacitor is about 2 or 3 volts, varying with tuning capacitor position. When measuring oscillating voltage use a RF VTM, no circuit tester gives correct indication. If the local oscillator voltage is normal, check all voltage distribution in the AM circuits by using a DC VTM and compare the measured values with those given in the schematic diagram.
3. FM Tuner

All components are mounted on a printed circuit board P100. FM signals induced by a FM antenna are led to FM antenna coil L101. These signals are then applied to the FET RF amplifier which in turn applies its output to the next transistor mixer H102 through a high Q tuned circuit. The mixer converts its input signal into 10.7MHz intermediate Frequency and amplifies it at the same time. The H103 is a local oscillator and its output is injected into the base of mixer transistor, the injection voltage is about 40mV.

The 10.7MHz front end output is led to the next IF section. The IF section consists of five stage of IF amplifier and one stage of sub IF amplifier.

Two pieces of ceramic filters are also used to obtain high selectivity, a pair of symmetrical diode limiters are also employed for the best limiting characteristics, improved capture ratio and good AM suppression. A part of IF amplifier H105 output is rectified by the diode H115, H116 and its DC output is fed back to the gate of FET RF amplifier to decrease the gain with increased signal strength.

3.1 Muting and Auto-Stereo Switching Circuits

The muting circuit consisting of all solid-state electrical switching has been incorporated in the Model 2015.

The DC voltage obtained by rectifying the sub IF output signal from the H109 is applied to the base of H110 and turns on it, if the sub IF output is greater than predetermined level (muting threshold level). When H110 turns on, the muting switch transistor H111 is turned on, thus decreasing the emitter collector resistance to near zero ohm and allowing emitter current path to the Final IF amplifier H108. When the input signal is lower than the predetermined level, the DC output obtained is small and can not turn on the H110, thus the H110 keeps its turn off state and this makes the switch transistor keep H111 turn off, then no emitter current is supplied to the H108 and signals below the threshold level are muted out.

The muting threshold level can be varied by adjusting the trimming resistor R153.

The DC voltage obtained is also used to make the Auto-Stereo switching transistor H112 turn on and off, and used to energizing the signal strength meter M001.

3.2 MPX Stereo Decoding Circuit

A Non-equalized audio signal from the FM detector is applied through the phase adjuster network of C148 and C161 to input terminal pin 1 on the MPX decoder IC H114. The MPX decoder IC consists of a stereo decoder and postamplifier for the output. The right and left channel signals decoded by the stereo decoder H114, appear at pin 10 (right channel) and pin 11 (left channel), respectively. These signals are passed through the low-pass filters and de-emphasis networks to eliminate undesirable residual switching signals and are then delivered to postamplifier input pin 5 (right channel) and pin 7 (left channel), respectively. The signals amplified in the postamplifiers to the required levels (approximately 10 dB) are delivered to pin 6 (right channel) and pin 8 (left channel), and are then passed through C169 and C168 to pin terminals J114 and J115, hence, to the function switches.

Pin 15 on the MPX IC H114 is connected through R163 to the collector of the autostereo switch transistor H112, which turns on or off according to the incoming FM signal strength, thereby automatically switching between the stereophonic and monaural operations. The H112 turns on or off in accordance with whether the FM signal strength is more or less than approximately 25μV.

3.3 Suggestion for Trouble Shooting of FM Tuner

3.3.1 Symptom: No. FM Reception

First turn on the Power switch and try to tune FM stations. Rotate the fly-wheel tuning knob slowly and observe the FM signal strength meter. If the signal strength meter deflect at several frequencies received, the tuner circuits preceding the discriminator circuit may have no failure.
When no reading is obtained in the meter, check FM local oscillator circuit, using a RF VTVM. The normal local oscillator voltage is one or two volts (rms) at the tuning capacitor, depending on the tuning capacitor position. If the local oscillator voltage is normal, next check all voltage distribution in the FM Front End and IF amplifier unit and compare them with those shown in the circuit diagram. When signal strength meter deflects but no sound is obtained, check audio circuits, using high sensitive oscilloscope.

3.3.2 Symptom: No Stereo Separation
First check the “MONO” switch is in normal out position. Connect a FM RF signal generator output modulated by a stereo modulator to the rear FM antenna terminals, and check the stereo beacon is turned on or not. If not turned on, check for 19 KHz pilot signal and 38 KHz switching signal, using an oscilloscope.

4. Phono and Pre-amplifier
Signals from the tuner and AUX jacks are applied to the selector switch. Signals from the PHONO jacks are applied to the phono-amplifier consisting of transistor H301 and H303. The gain of the amplifier is 37 dB. The amplified and equalized phono-signals are, then, fed to other section of the selector switch which, in turn, applies output signals from the tuner, phono-amplifier and AUX jacks to the TAPE MONITOR switch and TAPE OUT jacks. The TAPE MONITOR switch applies the signals to the balance and volume controls.

The controlled signals are fed to the pre-amplifier consisting of H501. Frequency response of the amplifier can be varied by BASS and TREBLE controls. The controlled output are then led to the main amplifier.

5. Main Amplifier
Transistor H601 is a pre-driver coupled to the transistor H603 through capacitor C611. Transistor H603 drives the inverter transistors H615 and H617 which, in turn, drive the power stage consisting of H001 and H002. Transistors H611 and H613 are current limiters and operate as power protecting circuits.

Excessive currents flowing into the power stage are detected by the resistors R645 and R650 and the resultant variations are applied to the transistors H611 and H613 and make them turned on. This decreases the current flowing into the H615 and H617. In this way the currents flowing in the power stage (H001 and H002) are restricted within a safe value.

6. Audio Trouble Analysis
1. Excessive line consumption
   b. Check for shorted transistors H001, H002. Check L002 for short.
2. No line consumption or zero bias.
   a. Check line cord, fuse, shorted H701, H702, H605 and H606.
   b. Check for open rectifiers H802, H803, H804, H805, H806 and H807 or open L002.
3. High hum and noise level.
   a. Check filter capacitors C004, C601 and C602.
4. Parastic oscillation
   a. Check for defective capacitors, C607, C608, C613, C614, C617 and C618.
5. Improper clipping
   a. Check for proper adjustment of R615 and R616.
7. Test Equipment Required for Servicing

Table 1 lists the test equipment required for servicing the Model 2015 Receiver.

<table>
<thead>
<tr>
<th>Item</th>
<th>Manufacturer and Model No.</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Signal Generator</td>
<td></td>
<td>Signal source for AM alignment. Used with AM Signal generator</td>
</tr>
<tr>
<td>Test Loop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FM Signal Generator</td>
<td>Less than 0.3% distortion</td>
<td>Signal source for FM alignment. Stereo separation alignment and trouble shooting.</td>
</tr>
<tr>
<td>Stereo Modulator</td>
<td>Less than 0.3% distortion</td>
<td></td>
</tr>
<tr>
<td>Audio Oscillator</td>
<td>Weston Model CVO-100P, less than 0.02% residual distortion is required.</td>
<td>Sinewave and squarewave signal source.</td>
</tr>
<tr>
<td>VTVM</td>
<td>With AC, DC, RF range</td>
<td></td>
</tr>
<tr>
<td>Circuit Tester</td>
<td>Simpson, Model 390</td>
<td></td>
</tr>
<tr>
<td>AC Wattmeter</td>
<td>Commercial Grade (1-10A)</td>
<td></td>
</tr>
<tr>
<td>AC Ammeter</td>
<td>Commercial Grade (0-150VAC)</td>
<td></td>
</tr>
<tr>
<td>Line Voltmeter</td>
<td>Powerstat, Model 116B</td>
<td></td>
</tr>
<tr>
<td>Variable Autotransformer</td>
<td>Use phono plug with 600 ohm across center pin and shell.</td>
<td></td>
</tr>
<tr>
<td>(0-140VAC, 10 amps.)</td>
<td>Commercial Grade</td>
<td></td>
</tr>
<tr>
<td>Shorting Plug</td>
<td>Commercial Grade</td>
<td></td>
</tr>
<tr>
<td>Output Load (8 ohms, 0.5%, 100W)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Load (4 ohms, 0.5%, 100W)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Test Equipment Required for Servicing
8. AM Alignment Procedure
8.1 AM IF Alignment
1. Connect a sweep generator to the test point (A) or J107 and an alignment scope to the test point (B).
2. Rotate each core of IF transformer L116 and L117 for maximum height and flat top symmetrical response.

8.2 AM Frequency Range and Tracking Alignment
1. Set AM signal generator to 525 KHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end.) and adjust the oscillator coil L115 for maximum audio output.
2. Set the signal generator to 1650 KHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor (CA-2) for maximum audio output.
3. Repeat the step 1 and 2 until no further adjustment is necessary.
4. Set the generator to 600 KHz and tune the receiver to the same frequency and adjust a slug core of AM ferrite rod antenna for maximum output.
5. Set the generator to 1400 KHz and tune the receiver to the same frequency and adjust the trimming capacitors of Antenna (CA-1) for maximum output.
6. Repeat the step 4 and 5 until no further adjustment is necessary.
Note: During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

9. FM Alignment Procedure
1. Connect a FM signal generator to the FM antenna terminals and a oscilloscope and an audio distortion analyzer to the tape output jacks on the rear panel.
2. Set the FM SG to 87.5 MHz and provide about 3 to 5 µV. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L103 to obtain maximum audio output.
3. Set the FM SG to 108.5 MHz and provide about 3 to 5 µV output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C187 for Maximum output.
4. Repeat the step 2 and 3 until no further adjustment is necessary.
5. Set the FM SG to 90 MHz and tune the receiver to the same frequency. Decrease signal generator output until the audio output level decreases with the decreasing generator output. Adjust the antenna coil L101, RF coil L102 and IF transformer L105 for minimum audio distortion.
6. Set the FM SG to 106 MHz and tune the receiver to the same frequency. Adjust the trimming capacitor CF-1, CF-2 for minimum distortion.
7. Repeat the step 5 and 6 until no further adjustment is necessary.
8. Connect a DC VTVM with 1 volt range selected to the test point (E)(J120) and adjust the secondary core (upper) of discriminator transformer L107 so that no voltage reading is obtained on the VTVM at no signal.
   Next set the FM SG to 98 MHz and increase the output level to 1 KµV, then tune the receiver to the same frequency so that no deflection is obtained on the VTVM.
   Adjust primary core (bottom) of L107 for minimum distortion, and adjust the L108 for the maximum deflection of FM signal strength meter M001.

9.1 STEREO Separation Alignment
1. Set the FM SG to provide 1 KµV at 98 MHz.
   Tune the receiver to the same frequency perfectly (so that the VTVM connected to the test point (E) gives no reading).
2. Modulate the FM SG with stereo composite signal consisting of subchannel signal only (of course a pilot signal must be included).
Adjust the core of L110 for maximum audio output, then, modulate the FM SG with a stereo composite signal consisting of L or R channel only, and adjust the trimming resistor R161 for maximum and equal separation in both channels.

9.2 Muting Circuit Alignment
1. Set the FM SG output to provide 25 μV (IHF) at 98 MHz and tune the receiver to the same frequency.
Adjust the trimming resistor R153 for the threshold level of 25 μV (during this adjustment turn the MUTING pushswitch "on")

10. Audio Adjustment
1. Connect a VTVM across the resistor R647 and adjust the trimming resistor R627 until the VTVM reads 7.5 mV DC.
For the other channel connect the VTVM across the R648 and adjust the R628 for the same reading.
2. Connect an oscilloscope across the speaker terminals. Apply an audio signal of 1 KHz to the AUX jacks and increase the audio signal until the audio output on the scope begin to start clipping.
Adjust the trimming resistor R615 for equal and symmetrical clipping.
For the other channel adjust the R616.

Figure 1. Dial Stringing
Figure 2. Front Panel Adjustment and Component Locations

Figure 3. Main Chassis Component Locations (Top View)
Figure 4. Rear Panel Adjustment and Component Locations

Figure 5. Main Chassis Component Locations (Bottom View)
Figure 6. FM/AM Tuner Assembly P100 Component Locations

Figure 7. Phono Amplifier Assembly P300 Component Locations
Figure 8. Tape Moni, Mono, Loudness and Muting Switch Unit Assembly P400 Component Locations

Figure 9. Tone Amplifier Assembly P500 Component Locations
Figure 10. Power Amplifier Assembly P600 Component Locations
Figure 11. Power Supply Assembly P800 Component Locations
## Parts List

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>P100</td>
<td>YD2849001</td>
<td>P.W. Board, Tuner</td>
</tr>
<tr>
<td></td>
<td>ZZ2882101</td>
<td>P.W. Board Ass'y</td>
</tr>
</tbody>
</table>

### Resistors

- All resistors are ±5% and 1/4W, unless otherwise indicated.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>R101</td>
<td>100Ω</td>
</tr>
<tr>
<td>R102</td>
<td>5KΩ</td>
</tr>
<tr>
<td>R103</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R104</td>
<td>100KΩ</td>
</tr>
<tr>
<td>R105</td>
<td>100Ω</td>
</tr>
<tr>
<td>R106</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R107</td>
<td>1KΩ</td>
</tr>
<tr>
<td>R108</td>
<td>100Ω</td>
</tr>
<tr>
<td>R109</td>
<td>100KΩ</td>
</tr>
<tr>
<td>R110</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R111</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R112</td>
<td>1.2KΩ</td>
</tr>
<tr>
<td>R113</td>
<td>33KΩ</td>
</tr>
<tr>
<td>R114</td>
<td>470Ω</td>
</tr>
<tr>
<td>R115</td>
<td>150Ω</td>
</tr>
<tr>
<td>R116</td>
<td>150Ω</td>
</tr>
<tr>
<td>R117</td>
<td>2.2KΩ</td>
</tr>
<tr>
<td>R118</td>
<td>1.5KΩ</td>
</tr>
<tr>
<td>R119</td>
<td>100Ω</td>
</tr>
<tr>
<td>R120</td>
<td>5.6KΩ</td>
</tr>
<tr>
<td>R121</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R122</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R123</td>
<td>1KΩ</td>
</tr>
<tr>
<td>R124</td>
<td>150Ω</td>
</tr>
<tr>
<td>R125</td>
<td>150Ω</td>
</tr>
<tr>
<td>R126</td>
<td>3.3KΩ</td>
</tr>
<tr>
<td>R127</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R128</td>
<td>3.3KΩ</td>
</tr>
<tr>
<td>R129</td>
<td>15KΩ</td>
</tr>
<tr>
<td>R130</td>
<td>2.7KΩ</td>
</tr>
<tr>
<td>R131</td>
<td>150Ω</td>
</tr>
<tr>
<td>R132</td>
<td>330Ω</td>
</tr>
<tr>
<td>R133</td>
<td>150Ω</td>
</tr>
<tr>
<td>R134</td>
<td>100Ω</td>
</tr>
<tr>
<td>R135</td>
<td>100Ω</td>
</tr>
<tr>
<td>R136</td>
<td>150Ω</td>
</tr>
<tr>
<td>R137</td>
<td>8.2KΩ</td>
</tr>
<tr>
<td>R138</td>
<td>15KΩ</td>
</tr>
<tr>
<td>R139</td>
<td>1KΩ</td>
</tr>
<tr>
<td>R140</td>
<td>220Ω</td>
</tr>
<tr>
<td>R141</td>
<td>820Ω</td>
</tr>
<tr>
<td>R142</td>
<td>820Ω</td>
</tr>
<tr>
<td>R143</td>
<td>100Ω</td>
</tr>
<tr>
<td>R144</td>
<td>6.8KΩ</td>
</tr>
<tr>
<td>R145</td>
<td>6.8KΩ</td>
</tr>
<tr>
<td>R146</td>
<td>10KΩ</td>
</tr>
<tr>
<td>R147</td>
<td>22KΩ</td>
</tr>
<tr>
<td>R148</td>
<td>8.2KΩ</td>
</tr>
<tr>
<td>R149</td>
<td>15KΩ</td>
</tr>
<tr>
<td>R150</td>
<td>100Ω</td>
</tr>
<tr>
<td>R151</td>
<td>33KΩ</td>
</tr>
<tr>
<td>R152</td>
<td>Trimming, 100KΩ (B)</td>
</tr>
<tr>
<td>R153</td>
<td>22KΩ</td>
</tr>
<tr>
<td>R154</td>
<td>22KΩ</td>
</tr>
<tr>
<td>R155</td>
<td>47KΩ</td>
</tr>
</tbody>
</table>

### Capacitors

- Variable, FM-3, AM-2, Gang
- Ceramic, 10PF ±10%
- Ceramic, 0.001μF ±20%
- Ceramic, 0.02μF +100%, -0%
- Electricly, 0.22μF, 25V
- Ceramic, 0.02μF +100%, -0%
- Ceramic, 0.02μF +100%, -0%
- Ceramic, 0.04μF +80%, -20%
- Ceramic, 10PF ±10%
- Ceramic, 5PF ±0.5PF
- Ceramic, 300PF ±5%
- Ceramic, 15PF ±10%
- Ceramic, 0.001μF ±20%
- Ceramic, 0.04μF +80%, -20%
- Ceramic, 0.02μF +100%, -0%
- Ceramic, 2PF ±0.5PF
- Ceramic, 15PF ±10%
- Ceramic, 20PF ±5%
- Ceramic, 7PF ±1PF
- Ceramic, 25PF ±5%
- Ceramic, 0.02μF +100%, -0%
- Ceramic, 500PF ±10%
- Ceramic, 0.04μF +80%, -20%
- Ceramic, 0.02μF +100%, -0%
- Electricly, 10μF, 16V
- Ceramic, 0.04μF +80%, -20%
<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C127</td>
<td>DK1840302</td>
<td>Ceramic, 0.04uF ±10%</td>
<td>L101</td>
<td>LA1004606</td>
<td>Ant. Coil, FM</td>
</tr>
<tr>
<td>C128</td>
<td>DD1620001</td>
<td>Ceramic, 20PF ±10%</td>
<td>L102</td>
<td>LAT1027809</td>
<td>RF Coil, FM</td>
</tr>
<tr>
<td>C129</td>
<td>EA1006169</td>
<td>Electrol, 10uF, 16V</td>
<td>L103</td>
<td>LO1203801</td>
<td>OSC Coil, FM</td>
</tr>
<tr>
<td>C130</td>
<td>DD1610101</td>
<td>Ceramic, 100PF ±10%</td>
<td>L104</td>
<td>LC1751001</td>
<td>Choke Coil, 0.75uH</td>
</tr>
<tr>
<td>C131</td>
<td>DK1823002</td>
<td>Ceramic, 0.02PF ±100%, -0%</td>
<td>L105</td>
<td>LL1001601</td>
<td>IFT, FM</td>
</tr>
<tr>
<td>C132</td>
<td>DK1840302</td>
<td>Ceramic, 0.04PF ±100%, -0%</td>
<td>L106</td>
<td>LL1223002</td>
<td>Choke Coil, 22uH</td>
</tr>
<tr>
<td>C133</td>
<td>DK1823002</td>
<td>Ceramic, 0.02PF ±100%, -0%</td>
<td>L107</td>
<td>LL1401623</td>
<td>IFT, FM</td>
</tr>
<tr>
<td>C134</td>
<td>DK1823002</td>
<td>Ceramic, 0.02PF ±100%, -0%</td>
<td>L108</td>
<td>LL1016601</td>
<td>IFT, FM</td>
</tr>
<tr>
<td>C135</td>
<td>DK1823002</td>
<td>Ceramic, 0.02PF ±100%, -0%</td>
<td>L109</td>
<td>LL1031001</td>
<td>MPX Coil, 19KHz</td>
</tr>
<tr>
<td>C136</td>
<td>DK1840302</td>
<td>Ceramic, 0.04PF ±100%, -0%</td>
<td>L110</td>
<td>LL1031004</td>
<td>MPX Coil, 38KHz</td>
</tr>
<tr>
<td>C137</td>
<td>DK1840302</td>
<td>Ceramic, 0.04PF ±100%, -0%</td>
<td>L111</td>
<td>LC2576001</td>
<td>Choke Coil, 57mH</td>
</tr>
<tr>
<td>C138</td>
<td>EA1006169</td>
<td>Electrol, 10uF, 16V</td>
<td>L112</td>
<td>LC2576001</td>
<td>Choke Coil, 57mH</td>
</tr>
<tr>
<td>C139</td>
<td>DD1650101</td>
<td>Ceramic, 500PF ±10%</td>
<td>L113</td>
<td>LD2446001</td>
<td>Choke Coil, 44mH</td>
</tr>
<tr>
<td>C140</td>
<td>EA1006169</td>
<td>Electrol, 10uF, 16V</td>
<td>L114</td>
<td>LD2446001</td>
<td>Choke Coil, 44mH</td>
</tr>
<tr>
<td>C141</td>
<td>DD1620010</td>
<td>Ceramic, 200PF ±10%</td>
<td>L115</td>
<td>LO1001042</td>
<td>OSC Coil, AM</td>
</tr>
<tr>
<td>C142</td>
<td>DD1620010</td>
<td>Ceramic, 200PF ±10%</td>
<td>L116</td>
<td>LL1028002</td>
<td>IFT, AM</td>
</tr>
<tr>
<td>C143</td>
<td>DK1840302</td>
<td>Ceramic, 0.04PF ±100%, -0%</td>
<td>L117</td>
<td>LL1001048</td>
<td>IFT, AM</td>
</tr>
<tr>
<td>C144</td>
<td>DD1610101</td>
<td>Ceramic, 100PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C145</td>
<td>DD1823002</td>
<td>Ceramic, 0.02PF ±100%, -0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C146</td>
<td>AA1005009</td>
<td>Electrol, 1PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C147</td>
<td>AA1005009</td>
<td>Electrol, 1PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C148</td>
<td>AF1722001</td>
<td>Film, 0.002PF ±20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C149</td>
<td>AA3360909</td>
<td>Electrol, 3.3PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C150</td>
<td>AA1006169</td>
<td>Electrol, 10uF, 16V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C151</td>
<td>DF1612001</td>
<td>Ceramic, 0.001uF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C152</td>
<td>EA1006169</td>
<td>Electrol, 10uF, 16V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C153</td>
<td>EA3360909</td>
<td>Electrol, 3.3PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C154</td>
<td>DD1615005</td>
<td>Ceramic, 0.001uF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C155</td>
<td>DF1615005</td>
<td>Ceramic, 0.001uF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C156</td>
<td>AA4740901</td>
<td>Electrol, 4.7PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C157</td>
<td>AA4740901</td>
<td>Electrol, 4.7PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C158</td>
<td>DF1632006</td>
<td>Ceramic, 0.003PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C159</td>
<td>DF1632006</td>
<td>Ceramic, 0.003PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C160</td>
<td>DD1536101</td>
<td>Ceramic, 360PF ±5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C161</td>
<td>DD1536101</td>
<td>Ceramic, 360PF ±5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C162</td>
<td>DF1515005</td>
<td>Ceramic, 0.001uF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C163</td>
<td>DF1515005</td>
<td>Ceramic, 0.001uF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C164</td>
<td>DF1622005</td>
<td>Ceramic, 0.002PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C165</td>
<td>DF1622005</td>
<td>Ceramic, 0.002PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C166</td>
<td>DF1532005</td>
<td>Ceramic, 0.003PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C167</td>
<td>DF1532005</td>
<td>Ceramic, 0.003PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C168</td>
<td>AA4740901</td>
<td>Electrol, 4.7PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C169</td>
<td>AA4740901</td>
<td>Electrol, 4.7PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C170</td>
<td>AA2270169</td>
<td>Electrol, 220PF, 16V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C171</td>
<td>DF1768001</td>
<td>Film, 0.008PF ±20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C172</td>
<td>DF1722001</td>
<td>Film, 0.022PF ±20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C173</td>
<td>DF1740301</td>
<td>Film, 0.04PF ±20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C174</td>
<td>DF1853001</td>
<td>Film, 300PF ±5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C175</td>
<td>DF1853001</td>
<td>Film, 300PF ±5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C176</td>
<td>DF1740301</td>
<td>Film, 0.04PF ±20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C177</td>
<td>AA4760109</td>
<td>Electrol, 47uF, 10V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C178</td>
<td>DK1840302</td>
<td>Ceramic, 0.02PF ±100%, -20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C179</td>
<td>DD1530101</td>
<td>Ceramic, 200PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C180</td>
<td>DD1620001</td>
<td>Ceramic, 200PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C181</td>
<td>DF1647201</td>
<td>Film, 0.004PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C182</td>
<td>DF1647201</td>
<td>Film, 0.004PF ±10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C183</td>
<td>DK1840302</td>
<td>Ceramic, 0.04PF ±80%, -20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C184</td>
<td>EV2240201</td>
<td>Ceramic, 0.04PF ±80%, -20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C185</td>
<td>DK1840302</td>
<td>Ceramic, 0.04PF ±80%, -20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C186</td>
<td>EA1005009</td>
<td>Electrol, 1PF, 50V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C187</td>
<td>CT1100008</td>
<td>Trimming, 10PF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REF. DESIG.</td>
<td>MARANTZ PART NO.</td>
<td>DESCRIPTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J107</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J108</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J109</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J110</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J111</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J112</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J113</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J114</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J115</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J116</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J117</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J118</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J119</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J120</td>
<td>YP1000099</td>
<td>Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0906</td>
<td>282110901</td>
<td>Shield x 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0907</td>
<td>286710901</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0908</td>
<td>285010902</td>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1109</td>
<td>62031650W</td>
<td>Lug</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C314</td>
<td>EV1050351</td>
<td>Electroly, 1μF ±20%, 36V</td>
</tr>
<tr>
<td>C315</td>
<td>EA1070389</td>
<td>Electroly, 160μF, 36V</td>
</tr>
<tr>
<td>C316</td>
<td>EA4760609</td>
<td>Electroly, 47μF, 50V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>HT313272B</td>
<td>Transistor, 2SC1327 (T), (U)</td>
</tr>
<tr>
<td>H302</td>
<td>HT313272B</td>
<td>Transistor, 2SC1327 (T), (U)</td>
</tr>
<tr>
<td>H303</td>
<td>HT313272A</td>
<td>Transistor, 2SC1327 (T), (T)</td>
</tr>
<tr>
<td>H304</td>
<td>HR313272A</td>
<td>Transistor, 2SC1327 (S), (T)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>J301</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J302</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J303</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J304</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J305</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J306</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J307</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J308</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>P300</td>
<td>YD2850001</td>
<td>P.W. Board, Phono</td>
</tr>
<tr>
<td></td>
<td>Z22882201</td>
<td>P.W. Board Ass'y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESISTORS</th>
<th>All resistors are ±5% and 1/4W.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R301</td>
<td>RT0575314 75KΩ</td>
</tr>
<tr>
<td>R302</td>
<td>RT0575314 75KΩ</td>
</tr>
<tr>
<td>R303</td>
<td>RT0539114 390Ω</td>
</tr>
<tr>
<td>R304</td>
<td>RT0539114 390Ω</td>
</tr>
<tr>
<td>R305</td>
<td>RT0539114 390Ω</td>
</tr>
<tr>
<td>R306</td>
<td>RT0539114 390Ω</td>
</tr>
<tr>
<td>R307</td>
<td>RT0568314 68KΩ</td>
</tr>
<tr>
<td>R308</td>
<td>RT0568314 68KΩ</td>
</tr>
<tr>
<td>R309</td>
<td>RT0522314 22KΩ</td>
</tr>
<tr>
<td>R310</td>
<td>RT0522314 22KΩ</td>
</tr>
<tr>
<td>R311</td>
<td>RT0527414 270KΩ</td>
</tr>
<tr>
<td>R312</td>
<td>RT0527414 270KΩ</td>
</tr>
<tr>
<td>R313</td>
<td>RT0539114 390Ω</td>
</tr>
<tr>
<td>R314</td>
<td>RT0539114 390Ω</td>
</tr>
<tr>
<td>R315</td>
<td>RT05682214 8.2KΩ</td>
</tr>
<tr>
<td>R316</td>
<td>RT05682214 8.2KΩ</td>
</tr>
<tr>
<td>R317</td>
<td>RT0533414 330KΩ</td>
</tr>
<tr>
<td>R318</td>
<td>RT0533414 330KΩ</td>
</tr>
<tr>
<td>R319</td>
<td>RT0522414 220KΩ</td>
</tr>
<tr>
<td>R320</td>
<td>RT0522414 220KΩ</td>
</tr>
<tr>
<td>R321</td>
<td>RT0518314 18KΩ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPACITORS</th>
<th>Electroly, 3.3μF ±20%, 25V</th>
</tr>
</thead>
<tbody>
<tr>
<td>C301</td>
<td>EV3350256</td>
</tr>
<tr>
<td>C302</td>
<td>EV3350256</td>
</tr>
<tr>
<td>C303</td>
<td>DD1685001 Ceramic, 500PF ±10%, 50V</td>
</tr>
<tr>
<td>C304</td>
<td>DD1685001 Ceramic, 50PF ±10%, 50V</td>
</tr>
<tr>
<td>C305</td>
<td>DF1632025 Film, 0.0033μF ±10%, 50V</td>
</tr>
<tr>
<td>C306</td>
<td>DF1632025 Film, 0.0033μF ±10%, 50V</td>
</tr>
<tr>
<td>C307</td>
<td>DD1665001 Ceramic, 50PF ±10%, 50V</td>
</tr>
<tr>
<td>C308</td>
<td>DD1665001 Ceramic, 50PF ±10%, 50V</td>
</tr>
<tr>
<td>C309</td>
<td>EA1070109 100μF, 10V</td>
</tr>
<tr>
<td>C310</td>
<td>EA1070109 100μF, 10V</td>
</tr>
<tr>
<td>C311</td>
<td>DF1610305 Film, 0.01μF ±10%, 50V</td>
</tr>
<tr>
<td>C312</td>
<td>DF1610305 Film, 0.01μF ±10%, 50V</td>
</tr>
<tr>
<td>C313</td>
<td>EV1050351 Electroly, 1μF ±20%, 35V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESISTORS</th>
<th>All resistors are ±5% and 1/4W, unless otherwise indicated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R301</td>
<td>RT0510214 1KΩ</td>
</tr>
<tr>
<td>R302</td>
<td>RT0510214 1KΩ</td>
</tr>
<tr>
<td>R303</td>
<td>RT0522414 220KΩ</td>
</tr>
<tr>
<td>R304</td>
<td>RT0522414 220KΩ</td>
</tr>
<tr>
<td>R305</td>
<td>RT0515314 15KΩ</td>
</tr>
<tr>
<td>R306</td>
<td>RT0515314 15KΩ</td>
</tr>
<tr>
<td>R307</td>
<td>RT05568214 5.6KΩ</td>
</tr>
<tr>
<td>R308</td>
<td>RT05568214 5.6KΩ</td>
</tr>
<tr>
<td>R309</td>
<td>RT0518114 180Ω</td>
</tr>
<tr>
<td>R310</td>
<td>RT0518114 180Ω</td>
</tr>
<tr>
<td>R311</td>
<td>RT0522314 22KΩ</td>
</tr>
<tr>
<td>R312</td>
<td>RT0522314 22KΩ</td>
</tr>
<tr>
<td>R313</td>
<td>RT0512314 12KΩ</td>
</tr>
<tr>
<td>R314</td>
<td>RT0512314 12KΩ</td>
</tr>
<tr>
<td>R315</td>
<td>RT0512314 12KΩ</td>
</tr>
<tr>
<td>R316</td>
<td>RT0512314 12KΩ</td>
</tr>
<tr>
<td>R317</td>
<td>RA05104015 Trimming, 100KΩ (B)</td>
</tr>
<tr>
<td>R318</td>
<td>RA05104015 Trimming, 100KΩ (B)</td>
</tr>
<tr>
<td>R319</td>
<td>RT0510414 100KΩ</td>
</tr>
<tr>
<td>R320</td>
<td>RT0510414 100KΩ</td>
</tr>
<tr>
<td>R321</td>
<td>RT0510414 100KΩ</td>
</tr>
<tr>
<td>R322</td>
<td>RT0510414 100KΩ</td>
</tr>
<tr>
<td>R323</td>
<td>RA05104015 Trimming, 500Ω (B)</td>
</tr>
<tr>
<td>R324</td>
<td>RA05104015 Trimming, 500Ω (B)</td>
</tr>
<tr>
<td>R325</td>
<td>RT0527214 27KΩ</td>
</tr>
<tr>
<td>R326</td>
<td>RT0527214 27KΩ</td>
</tr>
<tr>
<td>R327</td>
<td>RT0527214 27KΩ</td>
</tr>
<tr>
<td>R328</td>
<td>RT0527214 27KΩ</td>
</tr>
<tr>
<td>R329</td>
<td>RT0527214 27KΩ</td>
</tr>
<tr>
<td>R330</td>
<td>RT0527214 27KΩ</td>
</tr>
<tr>
<td>R331</td>
<td>GF0547114 470Ω</td>
</tr>
<tr>
<td>R332</td>
<td>GF0547114 470Ω</td>
</tr>
<tr>
<td>R333</td>
<td>GF0522114 220Ω</td>
</tr>
<tr>
<td>R334</td>
<td>GF0522114 220Ω</td>
</tr>
<tr>
<td>R335</td>
<td>RT0533314 33ΚΩ</td>
</tr>
<tr>
<td>R336</td>
<td>RT0533314 33КΩ</td>
</tr>
<tr>
<td>REF. DESIG.</td>
<td>MARANTZ PART NO.</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>R637</td>
<td>GF0522014</td>
</tr>
<tr>
<td>R638</td>
<td>GF0522014</td>
</tr>
<tr>
<td>R639</td>
<td>GF0522114</td>
</tr>
<tr>
<td>R640</td>
<td>GF0522114</td>
</tr>
<tr>
<td>R641</td>
<td>GF0522014</td>
</tr>
<tr>
<td>R642</td>
<td>GF0522014</td>
</tr>
<tr>
<td>R643</td>
<td>GF0522114</td>
</tr>
<tr>
<td>R644</td>
<td>GF0522114</td>
</tr>
<tr>
<td>R645</td>
<td>GF0591114</td>
</tr>
<tr>
<td>R646</td>
<td>GF0591114</td>
</tr>
<tr>
<td>R647</td>
<td>RW1000503</td>
</tr>
<tr>
<td>R648</td>
<td>RW1000503</td>
</tr>
<tr>
<td>R649</td>
<td>RW1000503</td>
</tr>
<tr>
<td>R650</td>
<td>RW1000503</td>
</tr>
<tr>
<td>R651</td>
<td>GF0547114</td>
</tr>
<tr>
<td>R652</td>
<td>GF0547114</td>
</tr>
<tr>
<td>R653</td>
<td>RC1002122</td>
</tr>
<tr>
<td>R654</td>
<td>RC1002122</td>
</tr>
<tr>
<td>R655</td>
<td>RC1002122</td>
</tr>
<tr>
<td>R656</td>
<td>RC1002122</td>
</tr>
<tr>
<td>R657</td>
<td>RT0822124</td>
</tr>
<tr>
<td>R658</td>
<td>RT0822124</td>
</tr>
</tbody>
</table>

**CAPACITORS**

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C601</td>
<td>EA1070259</td>
<td>Electroly, 100μF, 25V</td>
</tr>
<tr>
<td>C602</td>
<td>EA1070259</td>
<td>Electroly, 100μF, 25V</td>
</tr>
<tr>
<td>C603</td>
<td>DD1010101</td>
<td>Ceramic, 100μF ±10%</td>
</tr>
<tr>
<td>C604</td>
<td>DD1010101</td>
<td>Ceramic, 100μF ±10%</td>
</tr>
<tr>
<td>C605</td>
<td>EM1005251</td>
<td>Electroly, 1μF ±20%, 25V</td>
</tr>
<tr>
<td>C606</td>
<td>EM1005251</td>
<td>Electroly, 1μF ±20%, 25V</td>
</tr>
<tr>
<td>C607</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C608</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C609</td>
<td>EA4760509</td>
<td>Electroly, 47μF, 50V</td>
</tr>
<tr>
<td>C610</td>
<td>EA4760509</td>
<td>Electroly, 47μF, 50V</td>
</tr>
<tr>
<td>C611</td>
<td>EA1060259</td>
<td>Electroly, 10μF, 25V</td>
</tr>
<tr>
<td>C612</td>
<td>EA1060259</td>
<td>Electroly, 10μF, 25V</td>
</tr>
<tr>
<td>C613</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C614</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C615</td>
<td>EA1070356</td>
<td>Electroly, 100μF, 35V</td>
</tr>
<tr>
<td>C616</td>
<td>EA1070356</td>
<td>Electroly, 100μF, 35V</td>
</tr>
<tr>
<td>C617</td>
<td>DD1010101</td>
<td>Ceramic, 100μF ±10%</td>
</tr>
<tr>
<td>C618</td>
<td>DD1010101</td>
<td>Ceramic, 100μF ±10%</td>
</tr>
<tr>
<td>C619</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C620</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C621</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C622</td>
<td>DD1050001</td>
<td>Ceramic, 50μF ±10%</td>
</tr>
<tr>
<td>C623</td>
<td>EB2280364</td>
<td>Electroly, 2200μF, 35V</td>
</tr>
<tr>
<td>C624</td>
<td>EB2280364</td>
<td>Electroly, 2200μF, 35V</td>
</tr>
<tr>
<td>C625</td>
<td>DF1710406</td>
<td>Film, 0.1μF ±20%, 50V</td>
</tr>
<tr>
<td>C626</td>
<td>DF1710406</td>
<td>Film, 0.1μF ±20%, 50V</td>
</tr>
<tr>
<td>C627</td>
<td>EA1070109</td>
<td>Electroly, 10μF, 10V</td>
</tr>
<tr>
<td>C628</td>
<td>EA1070109</td>
<td>Electroly, 10μF, 10V</td>
</tr>
<tr>
<td>C629</td>
<td>EA2260359</td>
<td>Electroly, 22μF, 35V</td>
</tr>
<tr>
<td>C630</td>
<td>EA2260359</td>
<td>Electroly, 22μF, 35V</td>
</tr>
</tbody>
</table>

**SEMICONDUCTORS**

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>H601</td>
<td>HT313272A</td>
<td>Transistor, 2SC1327 S or R</td>
</tr>
<tr>
<td>H602</td>
<td>HT313272A</td>
<td>Transistor, 2SC1327 S or R</td>
</tr>
<tr>
<td>H603</td>
<td>HT313181C</td>
<td>Transistor, 2SC13181C</td>
</tr>
<tr>
<td>H604</td>
<td>HT313181C</td>
<td>Transistor, 2SC13181C</td>
</tr>
<tr>
<td>H605</td>
<td>HH000912</td>
<td>Thermistor, 220Ω</td>
</tr>
<tr>
<td>H606</td>
<td>HH000912</td>
<td>Thermistor, 220Ω</td>
</tr>
<tr>
<td>H607</td>
<td>HD1006302</td>
<td>Diode, 200A90M</td>
</tr>
</tbody>
</table>

**RESISTORS**

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>R601</td>
<td>GS1030103</td>
<td>300Ω ±10%, 3W</td>
</tr>
<tr>
<td>R602</td>
<td>GJ1025102</td>
<td>250Ω ±10%, 2W</td>
</tr>
<tr>
<td>R603</td>
<td>RT0513314</td>
<td>13KΩ ±5%, 2W</td>
</tr>
<tr>
<td>R604</td>
<td>RT0514014</td>
<td>100KΩ ±5%, 2W</td>
</tr>
<tr>
<td>R605</td>
<td>RC1060012</td>
<td>56Ω ±10%, 2W</td>
</tr>
<tr>
<td>R606</td>
<td>RC101012</td>
<td>10Ω ±10%, 2W</td>
</tr>
<tr>
<td>R607</td>
<td>RT0527014</td>
<td>27Ω ±5%, 2W</td>
</tr>
</tbody>
</table>

**CAPACITORS**

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C801</td>
<td>DK1810351</td>
<td>0.01μF +100%, -0%, 500V</td>
</tr>
<tr>
<td>C802</td>
<td>DK1810351</td>
<td>0.01μF +100%, -0%, 500V</td>
</tr>
<tr>
<td>C803</td>
<td>EA3370959</td>
<td>330μF, 50V</td>
</tr>
<tr>
<td>C804</td>
<td>EA3370959</td>
<td>330μF, 50V</td>
</tr>
<tr>
<td>REF. DESIG.</td>
<td>MARANTZ PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C805</td>
<td>EA2270169</td>
<td>220μF, 16V</td>
</tr>
<tr>
<td>C806</td>
<td>EA1070509</td>
<td>100μF, 50V</td>
</tr>
<tr>
<td>C807</td>
<td>EA1070509</td>
<td>100μF, 50V</td>
</tr>
<tr>
<td>C808</td>
<td>EA4770169</td>
<td>470μF, 10V</td>
</tr>
<tr>
<td>C809</td>
<td>DK1840302</td>
<td>0.04μF, +100%, -50%</td>
</tr>
<tr>
<td>H801</td>
<td>HT312841R</td>
<td>Transistor 2SC1384 (R)</td>
</tr>
<tr>
<td>H802</td>
<td>HD2000801</td>
<td>Diode, 065C</td>
</tr>
<tr>
<td>H803</td>
<td>HD2000801</td>
<td>Diode, 065C</td>
</tr>
<tr>
<td>H804</td>
<td>HD2000801</td>
<td>Diode, 065C</td>
</tr>
<tr>
<td>H805</td>
<td>HD2000801</td>
<td>Diode, 065B</td>
</tr>
<tr>
<td>H806</td>
<td>HD2000801</td>
<td>Diode, 065B</td>
</tr>
<tr>
<td>H807</td>
<td>HD2000801</td>
<td>Diode, W06B</td>
</tr>
<tr>
<td>H808</td>
<td>HD2000801</td>
<td>Diode, W06B</td>
</tr>
<tr>
<td>H809</td>
<td>HD3002109</td>
<td>Diode, BZ-140 1W</td>
</tr>
<tr>
<td>H810</td>
<td>HD2000501</td>
<td>Diode, W06B</td>
</tr>
<tr>
<td>H811</td>
<td>HD2000501</td>
<td>Diode, W06B</td>
</tr>
<tr>
<td>J801</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J802</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J803</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J804</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J805</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J806</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J807</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J808</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J809</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J810</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J811</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J812</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>0403</td>
<td>286018650</td>
<td>Bracket K</td>
</tr>
<tr>
<td>0408</td>
<td>286020101</td>
<td>Partitioner</td>
</tr>
<tr>
<td>0409</td>
<td>286018603</td>
<td>Bracket</td>
</tr>
<tr>
<td>0410</td>
<td>286018604</td>
<td>Bracket</td>
</tr>
<tr>
<td>0412</td>
<td>286012201</td>
<td>Bearing</td>
</tr>
<tr>
<td>0421</td>
<td>141511801</td>
<td>Spacer</td>
</tr>
<tr>
<td>0507</td>
<td>286016501</td>
<td>Bracket K</td>
</tr>
<tr>
<td>0611</td>
<td>51040306A</td>
<td>F.H.M. Screw x 2</td>
</tr>
<tr>
<td>0615</td>
<td>51100306A</td>
<td>B.H.M. Screw x 8</td>
</tr>
<tr>
<td>0616</td>
<td>51100306A</td>
<td>B.H.M. Screw x 4</td>
</tr>
<tr>
<td>0618</td>
<td>51100306A</td>
<td>B.H.M. Screw x 6</td>
</tr>
<tr>
<td>0621</td>
<td>51100306A</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0623</td>
<td>51100306A</td>
<td>B.H.M. Screw x 3</td>
</tr>
<tr>
<td>0625</td>
<td>51100306A</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0628</td>
<td>51102604A</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>S001</td>
<td>SR0805022</td>
<td>Rotary Switch, Function</td>
</tr>
<tr>
<td>R001</td>
<td>GT0515212</td>
<td>Resistor, 1.5KΩ ±5%, 1/4W</td>
</tr>
<tr>
<td>R002</td>
<td>RT0518314</td>
<td>Resistor, 18KΩ ±5%, 1/4W</td>
</tr>
<tr>
<td>R003</td>
<td>RT0518314</td>
<td>Resistor, 18KΩ ±5%, 1/4W</td>
</tr>
<tr>
<td>C003</td>
<td>EA4760169</td>
<td>Electrolyt Cap, 47μF, 16V</td>
</tr>
<tr>
<td>S004</td>
<td>SP0201009</td>
<td>Push Switch, Speaker</td>
</tr>
<tr>
<td>S005</td>
<td>SP0201009</td>
<td>Push Switch, Speaker</td>
</tr>
<tr>
<td>1030</td>
<td>286276016</td>
<td>Shield</td>
</tr>
<tr>
<td>0411</td>
<td>285027101</td>
<td>Holder</td>
</tr>
<tr>
<td>J015</td>
<td>YJ0100005</td>
<td>Jack, Phone</td>
</tr>
<tr>
<td>R009</td>
<td>RS0254004</td>
<td>Variable Resist., Balance, 250KΩ (BH)</td>
</tr>
<tr>
<td>R010</td>
<td>RM0259022</td>
<td>Variable Resist., Volume, 250KΩ (B)</td>
</tr>
<tr>
<td>S002</td>
<td>SP0301001</td>
<td>Push Switch, Power</td>
</tr>
<tr>
<td>G001</td>
<td>BF1040001</td>
<td>Printed Compo., 0.1μF/120Ω</td>
</tr>
<tr>
<td>M001</td>
<td>IM1104208</td>
<td>DC Meter, Tuning</td>
</tr>
<tr>
<td>0416</td>
<td>285012003</td>
<td>Insulator</td>
</tr>
<tr>
<td>0417</td>
<td>285011801</td>
<td>Spacer</td>
</tr>
<tr>
<td>C005</td>
<td>EA1087016</td>
<td>Electrolyt Cap, 100μF, 10V</td>
</tr>
<tr>
<td>0501</td>
<td>285016009</td>
<td>Bracket</td>
</tr>
<tr>
<td>0503</td>
<td>283711203</td>
<td>Shaft</td>
</tr>
<tr>
<td>0505</td>
<td>2857726201</td>
<td>Pulley</td>
</tr>
<tr>
<td>0502</td>
<td>285016008</td>
<td>Bracket</td>
</tr>
<tr>
<td>2736</td>
<td>283711203</td>
<td>Shaft</td>
</tr>
<tr>
<td>2737</td>
<td>2857726201</td>
<td>Pulley</td>
</tr>
<tr>
<td>0414</td>
<td>281827101</td>
<td>P.H. Tap Screw x 5</td>
</tr>
<tr>
<td>0631</td>
<td>515703066</td>
<td>Holder</td>
</tr>
<tr>
<td>J004</td>
<td>YJ0800019</td>
<td>Socket, Dial Illumination</td>
</tr>
<tr>
<td>J005</td>
<td>YJ0800019</td>
<td>Socket, Dial Illumination</td>
</tr>
<tr>
<td>J006</td>
<td>YJ0800019</td>
<td>Socket, Dial Illumination</td>
</tr>
<tr>
<td>J007</td>
<td>YJ0800019</td>
<td>Socket, Dial Illumination</td>
</tr>
<tr>
<td>J008</td>
<td>YJ0800019</td>
<td>Socket, Dial Illumination</td>
</tr>
<tr>
<td>M003</td>
<td>IN1080007</td>
<td>Lamp, Dial Illumination</td>
</tr>
<tr>
<td>M004</td>
<td>IN1080007</td>
<td>Lamp, Dial Illumination</td>
</tr>
<tr>
<td>M005</td>
<td>IN1080007</td>
<td>Lamp, Dial Illumination</td>
</tr>
<tr>
<td>M006</td>
<td>IN1080007</td>
<td>Lamp, Dial Illumination</td>
</tr>
<tr>
<td>M007</td>
<td>IN1080007</td>
<td>Lamp, Dial Illumination</td>
</tr>
<tr>
<td>0415</td>
<td>282771003</td>
<td>Bracket</td>
</tr>
<tr>
<td>0618</td>
<td>282771003</td>
<td>Sheet</td>
</tr>
<tr>
<td>P200</td>
<td>YD2840024</td>
<td>P.W. Board, Lamp</td>
</tr>
<tr>
<td>M201</td>
<td>IN1006301</td>
<td>Lamp</td>
</tr>
<tr>
<td>J201</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J202</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J203</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>0407</td>
<td>288212004</td>
<td>Insulator</td>
</tr>
<tr>
<td>0413</td>
<td>282727401</td>
<td>Reflector</td>
</tr>
<tr>
<td>0619</td>
<td>515703068</td>
<td>P.H. Tap Screw x 2</td>
</tr>
<tr>
<td>0630</td>
<td>515703058</td>
<td>P.H. Tap Screw x 4</td>
</tr>
<tr>
<td>P400</td>
<td>YD2850002</td>
<td>P.W. Board, Switch</td>
</tr>
<tr>
<td>R401</td>
<td>RT0510214</td>
<td>RESISTORS</td>
</tr>
<tr>
<td>1KΩ</td>
<td>±5%, 1/4W</td>
<td>1KΩ ±5%, 1/4W</td>
</tr>
<tr>
<td>REF. DESIG.</td>
<td>MARANTZ PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>R402</td>
<td>RT0510214</td>
<td>1KΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>R403</td>
<td>RT0547214</td>
<td>4.7KΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>R404</td>
<td>RT0547214</td>
<td>4.7KΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>R406</td>
<td>RT0818314</td>
<td>18KΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>R407</td>
<td>RT0822414</td>
<td>18KΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>R408</td>
<td>RT0822414</td>
<td>22KΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>C401</td>
<td>DF1622035</td>
<td>Film Cap., 0.022µF ±10%, 50V</td>
</tr>
<tr>
<td>C402</td>
<td>DF1622035</td>
<td>Film Cap., 0.022µF ±10%, 50V</td>
</tr>
<tr>
<td>C403</td>
<td>DF1620101</td>
<td>Ceramic Cap., 200PF ±10%, 50V</td>
</tr>
<tr>
<td>C404</td>
<td>DF1620101</td>
<td>Ceramic Cap., 200PF ±10%, 50V</td>
</tr>
<tr>
<td>S401</td>
<td>SP0204003</td>
<td>Push Switch, Tape/Mono/Loudness/Muting</td>
</tr>
<tr>
<td>J401</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J402</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J403</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>J404</td>
<td>YP1000099</td>
<td>Plug</td>
</tr>
<tr>
<td>0418</td>
<td>282706101</td>
<td>Guide</td>
</tr>
<tr>
<td>P500</td>
<td>YD2850003</td>
<td>P.W. Board, Tone</td>
</tr>
<tr>
<td>222982103</td>
<td></td>
<td>P.W. Board Ass'y</td>
</tr>
<tr>
<td>R501</td>
<td>RT0510214</td>
<td>1KΩ</td>
</tr>
<tr>
<td>R502</td>
<td>RT0510214</td>
<td>1KΩ</td>
</tr>
<tr>
<td>R503</td>
<td>RT0515514</td>
<td>1.5MΩ</td>
</tr>
<tr>
<td>R504</td>
<td>RT0515514</td>
<td>1.5MΩ</td>
</tr>
<tr>
<td>R507</td>
<td>RT0547114</td>
<td>470Ω</td>
</tr>
<tr>
<td>R508</td>
<td>RT0547114</td>
<td>470Ω</td>
</tr>
<tr>
<td>R509</td>
<td>RT0512134</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R510</td>
<td>RT0512134</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R511</td>
<td>RT0512134</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R512</td>
<td>RT0512134</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R513</td>
<td>RT0527214</td>
<td>2.7KΩ</td>
</tr>
<tr>
<td>R514</td>
<td>RT0527214</td>
<td>2.7KΩ</td>
</tr>
<tr>
<td>R515</td>
<td>RT0522414</td>
<td>220KΩ</td>
</tr>
<tr>
<td>R516</td>
<td>RT0522414</td>
<td>220KΩ</td>
</tr>
<tr>
<td>R517</td>
<td>RT0512134</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R518</td>
<td>RT0512134</td>
<td>12KΩ</td>
</tr>
<tr>
<td>R519</td>
<td>RM0104006</td>
<td>Variable, 100KΩ (A)</td>
</tr>
<tr>
<td>R520</td>
<td>RM0104006</td>
<td>Variable, 100KΩ (A)</td>
</tr>
<tr>
<td>R521</td>
<td>RT0527214</td>
<td>2.7KΩ</td>
</tr>
<tr>
<td>C501</td>
<td>EM1050251</td>
<td>Electroly, 1μF ±20%, 25V</td>
</tr>
<tr>
<td>C502</td>
<td>EM1050251</td>
<td>Electroly, 1μF ±20%, 25V</td>
</tr>
<tr>
<td>C503</td>
<td>EA4750359</td>
<td>Electroly, 4.7μF, 35V</td>
</tr>
<tr>
<td>C504</td>
<td>EA4750359</td>
<td>Electroly, 4.7μF, 35V</td>
</tr>
<tr>
<td>C505</td>
<td>DF1610305</td>
<td>Film, 0.01µF ±10%, 50V</td>
</tr>
<tr>
<td>C506</td>
<td>DF1610305</td>
<td>Film, 0.01µF ±10%, 50V</td>
</tr>
<tr>
<td>C507</td>
<td>DF1610405</td>
<td>Film, 0.1µF ±10%, 50V</td>
</tr>
<tr>
<td>C509</td>
<td>DF1610205</td>
<td>Film, 0.001µF ±10%, 50V</td>
</tr>
<tr>
<td>C510</td>
<td>DF1610205</td>
<td>Film, 0.001µF ±10%, 50V</td>
</tr>
<tr>
<td>C511</td>
<td>DF1610305</td>
<td>Film, 0.01µF ±10%, 50V</td>
</tr>
<tr>
<td>C512</td>
<td>DF1610305</td>
<td>Film, 0.01µF ±10%, 50V</td>
</tr>
<tr>
<td>C513</td>
<td>EA1070359</td>
<td>Electroly, 100µF, 35V</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>J501</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J502</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J503</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J504</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J505</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>J506</td>
<td>YP1000094</td>
<td>Plug</td>
</tr>
<tr>
<td>H501</td>
<td>HT3132722A</td>
<td>Transistor, 2SC1327 S or T</td>
</tr>
<tr>
<td>H502</td>
<td>HT313272A</td>
<td>Transistor, 2SC1327 S or T</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>REF. DESIG.</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>282816040</td>
<td>Bracket Ass'y</td>
</tr>
<tr>
<td>0703</td>
<td>282816001</td>
<td>Bracket</td>
</tr>
<tr>
<td>0816</td>
<td>531010403E</td>
<td>Hexagon Nut</td>
</tr>
<tr>
<td>0818</td>
<td>54020401E</td>
<td>Flat Washer P</td>
</tr>
<tr>
<td>0819</td>
<td>540804000R</td>
<td>T.L. Washer OR</td>
</tr>
<tr>
<td>0821</td>
<td>55080366S</td>
<td>T.R. Rivet x 4</td>
</tr>
<tr>
<td>0826</td>
<td>51100038S</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0827</td>
<td>5131033E</td>
<td>Hexagon Nut x 2</td>
</tr>
<tr>
<td>0829</td>
<td>51100038S</td>
<td>B.H.M. Screw x 4</td>
</tr>
<tr>
<td>0830</td>
<td>5131033E</td>
<td>Hexagon Nut x 4</td>
</tr>
<tr>
<td>0832</td>
<td>51100038S</td>
<td>B.H.M. Screw x 4</td>
</tr>
<tr>
<td>0838</td>
<td>5131033E</td>
<td>Hexagon Nut x 4</td>
</tr>
<tr>
<td>J001</td>
<td>YXT04004</td>
<td>Terminal, FM/AM Ext. Antenna</td>
</tr>
<tr>
<td>J002</td>
<td>YXT020603</td>
<td>Terminal, Phono/Tape/Aux</td>
</tr>
<tr>
<td>J003</td>
<td>YXT020403</td>
<td>Terminal, Tape In/Tape Out</td>
</tr>
<tr>
<td>J006</td>
<td>YXT010303</td>
<td>Terminal, Ground</td>
</tr>
<tr>
<td>J010</td>
<td>YX0800012</td>
<td>Socket, Fuse</td>
</tr>
<tr>
<td>J011</td>
<td>YX0400018</td>
<td>Jack, Outlet</td>
</tr>
<tr>
<td>J012</td>
<td>YX0400018</td>
<td>Jack, Outlet</td>
</tr>
<tr>
<td>J013</td>
<td>YXT030401</td>
<td>Terminal, Speaker</td>
</tr>
<tr>
<td>J014</td>
<td>YXT030401</td>
<td>Terminal, Speaker</td>
</tr>
<tr>
<td>L004</td>
<td>LC1154002</td>
<td>Choke Coil, 150µH</td>
</tr>
<tr>
<td>L001</td>
<td>LF1120024</td>
<td>Ant. Coil, AM</td>
</tr>
<tr>
<td>0718</td>
<td>14552503</td>
<td>Bush x 2</td>
</tr>
<tr>
<td>0814</td>
<td>E1103038S</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>J018</td>
<td>YL0102003</td>
<td>Terminal, 2P Lug</td>
</tr>
<tr>
<td>F001</td>
<td>FS1020006</td>
<td>Fuse, UL 250V/2A, 30L</td>
</tr>
<tr>
<td>W001</td>
<td>YC024010</td>
<td>AC Cord</td>
</tr>
<tr>
<td>L004</td>
<td>LC1154002</td>
<td>Choke Coil, 150µH</td>
</tr>
<tr>
<td>L001</td>
<td>LF1120024</td>
<td>Ant. Coil, AM</td>
</tr>
<tr>
<td>0710</td>
<td>257816052</td>
<td>Bracket K</td>
</tr>
<tr>
<td>0714</td>
<td>2810271016</td>
<td>Holder</td>
</tr>
<tr>
<td>0806</td>
<td>51100308S</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0807</td>
<td>54060300R</td>
<td>T.L. Washer OR x 2</td>
</tr>
<tr>
<td>0808</td>
<td>531103303F</td>
<td>Hexagon Nut x 2</td>
</tr>
<tr>
<td>0810</td>
<td>511003103S</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0811</td>
<td>531103303E</td>
<td>Hexagon Nut x 2</td>
</tr>
<tr>
<td>L003</td>
<td>LC1322002</td>
<td>Choke Coil, 3.3uH</td>
</tr>
<tr>
<td>R004</td>
<td>GT0522512</td>
<td>Resistor, 2.2MΩ ±5%, 1/8W</td>
</tr>
<tr>
<td>1133</td>
<td>62031650W</td>
<td>Lug, Earth</td>
</tr>
<tr>
<td>REF. DESIGN</td>
<td>MARANTZ PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>1002</td>
<td>288226701</td>
<td>Heat Sink</td>
</tr>
<tr>
<td>1006</td>
<td>288210101</td>
<td>Support</td>
</tr>
<tr>
<td>1007</td>
<td>51060306A</td>
<td>P.H.M. Screw</td>
</tr>
<tr>
<td>H001</td>
<td>HT403152A</td>
<td>Transistor, 2SD315</td>
</tr>
<tr>
<td>H002</td>
<td>HT403152A</td>
<td>Transistor, 2SD315</td>
</tr>
<tr>
<td>H003</td>
<td>HT403152A</td>
<td>Transistor, 2SD315</td>
</tr>
<tr>
<td>H004</td>
<td>HT403152A</td>
<td>Transistor, 2SD315</td>
</tr>
<tr>
<td>P700</td>
<td>YD2882002</td>
<td>P.W. Board, Comp. x 2</td>
</tr>
<tr>
<td></td>
<td>ZZ2882002</td>
<td>P.W. Board Assy</td>
</tr>
</tbody>
</table>

**MISCELLANEOUS**

<table>
<thead>
<tr>
<th>REF. DESIGN</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>H701</td>
<td>HV0000212</td>
<td>Varistor, SV-3A x 2</td>
</tr>
<tr>
<td>I004</td>
<td>288211801</td>
<td>Spacer x 2</td>
</tr>
<tr>
<td>C004</td>
<td>EC3380551</td>
<td>Electroly Cap, 3300uF, 55V</td>
</tr>
<tr>
<td>C001</td>
<td>DK1710301</td>
<td>Ceramic Cap, 0.01uF ±20%</td>
</tr>
<tr>
<td>C002</td>
<td>DK1710301</td>
<td>Ceramic Cap, 0.01uF ±20%</td>
</tr>
<tr>
<td>4036</td>
<td>82031650W</td>
<td>Lug, Earth</td>
</tr>
<tr>
<td>4136</td>
<td>82031650W</td>
<td>Lug, Earth</td>
</tr>
<tr>
<td>J016</td>
<td>YL0107005</td>
<td>Terminal, 7P Lug</td>
</tr>
<tr>
<td>R005</td>
<td>RJ1010101</td>
<td>Resistor, 100Ω ±10%, 1W</td>
</tr>
<tr>
<td>R006</td>
<td>RJ1010101</td>
<td>Resistor, 100Ω ±10%, 1W</td>
</tr>
<tr>
<td>R007</td>
<td>RC1047012</td>
<td>Resistor, 47Ω ±10%, 1/2W</td>
</tr>
<tr>
<td>R008</td>
<td>RC1047012</td>
<td>Resistor, 47Ω ±10%, 1/2W</td>
</tr>
<tr>
<td>0903</td>
<td>282715901</td>
<td>Drum</td>
</tr>
<tr>
<td>0904</td>
<td>71101569M</td>
<td>Spring</td>
</tr>
<tr>
<td>0915</td>
<td>51050304D</td>
<td>Set Screw H.P. x 2</td>
</tr>
</tbody>
</table>

**B**

<table>
<thead>
<tr>
<th>REF. DESIGN</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0427</td>
<td>257706302</td>
<td>Fly Wheel Assy</td>
</tr>
<tr>
<td>0429</td>
<td>257727301</td>
<td>Fly Wheel</td>
</tr>
<tr>
<td>0431</td>
<td>289051120</td>
<td>Shaft</td>
</tr>
<tr>
<td>0607</td>
<td>53110603E</td>
<td>Hexagon Nut</td>
</tr>
<tr>
<td>0608</td>
<td>54040502N</td>
<td>Spring Washer</td>
</tr>
<tr>
<td>0609</td>
<td>54020050E</td>
<td>Flat Washer P</td>
</tr>
</tbody>
</table>

**D**

<table>
<thead>
<tr>
<th>REF. DESIGN</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0526</td>
<td>281801301</td>
<td>Pointer</td>
</tr>
<tr>
<td>0527</td>
<td>281801301</td>
<td>Pointer</td>
</tr>
<tr>
<td>0528</td>
<td>281801501</td>
<td>Cover</td>
</tr>
<tr>
<td>M002</td>
<td>IN1008018</td>
<td>Lamp, Diel Pointer</td>
</tr>
</tbody>
</table>

**C**

<table>
<thead>
<tr>
<th>REF. DESIGN</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0512</td>
<td>120200640</td>
<td>Dial String Assy</td>
</tr>
<tr>
<td>0513</td>
<td>120225801</td>
<td>Hook</td>
</tr>
<tr>
<td>0513</td>
<td>72080802A</td>
<td>String x 140</td>
</tr>
</tbody>
</table>

**REFERENCE**

<table>
<thead>
<tr>
<th>REF. DESIGN</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>288206340</td>
<td>Escutcheon Assy</td>
</tr>
<tr>
<td>0103</td>
<td>288206501</td>
<td>Escutcheon</td>
</tr>
<tr>
<td>0104</td>
<td>282240101</td>
<td>Frame</td>
</tr>
<tr>
<td>0106</td>
<td>282715001</td>
<td>Window</td>
</tr>
<tr>
<td>0106</td>
<td>281825005</td>
<td>Bush x 7</td>
</tr>
<tr>
<td>0107</td>
<td>273125001</td>
<td>Bush</td>
</tr>
<tr>
<td>0108</td>
<td>285005301</td>
<td>Cover</td>
</tr>
<tr>
<td>0110</td>
<td>285022501</td>
<td>Bush</td>
</tr>
<tr>
<td>J017</td>
<td>YL0105001</td>
<td>Lug, 5P</td>
</tr>
<tr>
<td>H007</td>
<td>HD2001105</td>
<td>Diode, 1S1655</td>
</tr>
<tr>
<td>H008</td>
<td>HD1000105</td>
<td>Diode, IN60</td>
</tr>
<tr>
<td>R011</td>
<td>RT0547114</td>
<td>Resistor, 470Ω ±25%, ½W</td>
</tr>
<tr>
<td>PP01</td>
<td>YD2882003</td>
<td>P.W. Board, Fuse Mount</td>
</tr>
<tr>
<td></td>
<td>ZZ2882003</td>
<td>P.W. Board Assy</td>
</tr>
</tbody>
</table>

**MISCELLANEOUS**

<table>
<thead>
<tr>
<th>REF. DESIGN</th>
<th>MARANTZ PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0228</td>
<td>951061103</td>
<td>Label, 3A</td>
</tr>
<tr>
<td>0229</td>
<td>951061101</td>
<td>Label, 1A</td>
</tr>
<tr>
<td>0521</td>
<td>28503201</td>
<td>Diel</td>
</tr>
<tr>
<td>0523</td>
<td>282705302</td>
<td>Cover</td>
</tr>
<tr>
<td>0524</td>
<td>282972001</td>
<td>Wire Material</td>
</tr>
<tr>
<td>0538</td>
<td>282972001</td>
<td>Wire Material</td>
</tr>
<tr>
<td>0122</td>
<td>275905701</td>
<td>Leg x 4</td>
</tr>
<tr>
<td>0310</td>
<td>51100410A</td>
<td>B.H.M. Screw x 4</td>
</tr>
<tr>
<td>0311</td>
<td>54020401A</td>
<td>Flat Washer P x 4</td>
</tr>
<tr>
<td>0312</td>
<td>54040402A</td>
<td>Spring Washer x 4</td>
</tr>
<tr>
<td>1009</td>
<td>51060308A</td>
<td>P.H.M. Screw x 2</td>
</tr>
<tr>
<td>1031</td>
<td>285010603</td>
<td>Shield</td>
</tr>
<tr>
<td>1033</td>
<td>13280603</td>
<td>Clamper x 15</td>
</tr>
<tr>
<td>1035</td>
<td>282210904</td>
<td>Shield</td>
</tr>
<tr>
<td>1103</td>
<td>51570408B</td>
<td>P.H. Tapt Screw x 4</td>
</tr>
<tr>
<td>1104</td>
<td>54040402N</td>
<td>Spring Washer x 4</td>
</tr>
<tr>
<td>1106</td>
<td>53110303E</td>
<td>Hexagon Nut</td>
</tr>
<tr>
<td>1107</td>
<td>51570301B</td>
<td>P.H. Tapt Screw</td>
</tr>
<tr>
<td>1108</td>
<td>51570306B</td>
<td>P.H. Tapt Screw x 5</td>
</tr>
<tr>
<td>1110</td>
<td>51100306E</td>
<td>B.H.M. Screw x 4</td>
</tr>
<tr>
<td>1111</td>
<td>51100306E</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>1115</td>
<td>51100306E</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>1117</td>
<td>51570306B</td>
<td>P.H. Tapt Screw x 2</td>
</tr>
<tr>
<td>1119</td>
<td>51570310B</td>
<td>P.H. Tapt Screw x 2</td>
</tr>
<tr>
<td>1122</td>
<td>51570306B</td>
<td>P.H. Tapt Screw x 8</td>
</tr>
<tr>
<td>1123</td>
<td>62031660W</td>
<td>Lug</td>
</tr>
<tr>
<td>REF. DESIGN</td>
<td>MARANTZ PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>1124</td>
<td>51100306S</td>
<td>B.H.M. Screw x 6</td>
</tr>
<tr>
<td>1125</td>
<td>61570306R</td>
<td>P.H. Tapt Screw x 2</td>
</tr>
<tr>
<td>1126</td>
<td>61570306R</td>
<td>P.H. Tapt Screw x 13</td>
</tr>
<tr>
<td>1127</td>
<td>54050300R</td>
<td>T.L. Washer OR x 5</td>
</tr>
<tr>
<td>1128</td>
<td>59030805P</td>
<td>Washer x 2</td>
</tr>
<tr>
<td>1129</td>
<td>61570306B</td>
<td>P.H. Tapt Screw x 2</td>
</tr>
<tr>
<td>1130</td>
<td>54050300R</td>
<td>T.L. Washer OR x 6</td>
</tr>
<tr>
<td>1131</td>
<td>61570306B</td>
<td>P.H. Tapt Screw</td>
</tr>
<tr>
<td>1132</td>
<td>54050300R</td>
<td>T.L. Washer OR</td>
</tr>
<tr>
<td>1134</td>
<td>53110303E</td>
<td>Hexagon Nut</td>
</tr>
<tr>
<td>1135</td>
<td>54050300R</td>
<td>T.L. Washer OR</td>
</tr>
<tr>
<td>FP01</td>
<td>FS1030006</td>
<td>Fuse Socket</td>
</tr>
<tr>
<td>FP02</td>
<td>FS1010008</td>
<td>Fuse Socket</td>
</tr>
<tr>
<td>L002</td>
<td>TS1850401</td>
<td>Power Trans.</td>
</tr>
<tr>
<td>1026</td>
<td>288210650</td>
<td>Chassis K</td>
</tr>
<tr>
<td>1118</td>
<td>61570306B</td>
<td>P.H. Tapt Screw x 4</td>
</tr>
<tr>
<td>0112</td>
<td>281815401</td>
<td>Knob x 7</td>
</tr>
<tr>
<td>0114</td>
<td>285015401</td>
<td>Knob x 4</td>
</tr>
<tr>
<td>0115</td>
<td>282215402</td>
<td>Knob x 4</td>
</tr>
<tr>
<td>0116</td>
<td>282725701</td>
<td>Lid</td>
</tr>
<tr>
<td>0119</td>
<td>25771803</td>
<td>Spacer x 3</td>
</tr>
<tr>
<td>0120</td>
<td>282225702</td>
<td>Lid</td>
</tr>
<tr>
<td>0124</td>
<td>352812001</td>
<td>Insulator</td>
</tr>
<tr>
<td>0202</td>
<td>288226501</td>
<td>Indicator</td>
</tr>
<tr>
<td>0211</td>
<td>257886101</td>
<td>Label, UL Caution</td>
</tr>
<tr>
<td>0212</td>
<td>257886102</td>
<td>Label, Do not Remove</td>
</tr>
<tr>
<td>0213</td>
<td>257886103</td>
<td>Label, See Marking</td>
</tr>
<tr>
<td>0214</td>
<td>250626506</td>
<td>Indicator, Do not Use as</td>
</tr>
<tr>
<td>0302</td>
<td>51112606E</td>
<td>T.H.M. Screw x 4</td>
</tr>
<tr>
<td>0304</td>
<td>51100406S</td>
<td>B.H.M. Screw x 8</td>
</tr>
<tr>
<td>0306</td>
<td>51100406S</td>
<td>B.H.M. Screw x 4</td>
</tr>
<tr>
<td>0307</td>
<td>54020401S</td>
<td>Flat Washer P x 4</td>
</tr>
<tr>
<td>0423</td>
<td>281810650</td>
<td>Bearing K</td>
</tr>
<tr>
<td>0432</td>
<td>285011202</td>
<td>Shaft</td>
</tr>
<tr>
<td>0433</td>
<td>284912001</td>
<td>Insulator</td>
</tr>
<tr>
<td>0532</td>
<td>282226901</td>
<td>Protector</td>
</tr>
<tr>
<td>0603</td>
<td>51640412D</td>
<td>Set Screw C. P.</td>
</tr>
<tr>
<td>0604</td>
<td>54040402N</td>
<td>Spring Washer x 2</td>
</tr>
<tr>
<td>0605</td>
<td>53110403E</td>
<td>Hexagon Nut</td>
</tr>
<tr>
<td>0613</td>
<td>51100306A</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0614</td>
<td>54050300R</td>
<td>T.L. Washer OR x 2</td>
</tr>
<tr>
<td>0634</td>
<td>51100304S</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>0635</td>
<td>56382540G</td>
<td>Eyelet</td>
</tr>
<tr>
<td>0824</td>
<td>51100300S</td>
<td>B.H.M. Screw x 2</td>
</tr>
<tr>
<td>1202</td>
<td>288285101</td>
<td>Instructions</td>
</tr>
<tr>
<td>1205</td>
<td>288285601</td>
<td>Schematic Diagram</td>
</tr>
<tr>
<td>1217</td>
<td>281885104</td>
<td>Instructions</td>
</tr>
<tr>
<td>1218</td>
<td>281885108</td>
<td>Instructions</td>
</tr>
<tr>
<td>1222</td>
<td>281885110</td>
<td>Instructions</td>
</tr>
<tr>
<td>1223</td>
<td>257785450</td>
<td>Guarantee Card K</td>
</tr>
<tr>
<td>1302</td>
<td>288280101</td>
<td>Packing Case</td>
</tr>
<tr>
<td>1303</td>
<td>288280111</td>
<td>Packing Case</td>
</tr>
<tr>
<td>1305</td>
<td>262880301</td>
<td>Partitioner x 2</td>
</tr>
<tr>
<td>1312</td>
<td>901393033</td>
<td>Polyethylene Bag</td>
</tr>
<tr>
<td>1314</td>
<td>901393060</td>
<td>Polyethylene Bag x 2</td>
</tr>
<tr>
<td>1317</td>
<td>102990401</td>
<td>Sleeve</td>
</tr>
<tr>
<td>1319</td>
<td>273182101</td>
<td>Silicagel x 2</td>
</tr>
<tr>
<td>1320</td>
<td>281905601</td>
<td>Buffer</td>
</tr>
<tr>
<td>1322</td>
<td>952281501</td>
<td>Serial NO Card x 4</td>
</tr>
<tr>
<td>1331</td>
<td>ZA0200007</td>
<td>Ext. Antenna</td>
</tr>
</tbody>
</table>
TECHNICAL SPECIFICATIONS

AUDIO CIRCUITS:

Rated continuous (RMS) power output per channel, both channels operating simultaneously: 15 Watts at 4 and 8 ohms, 10 Watts at 16 ohms

Comparable Total Music Power (IHF): 45 Watts at 8 ohms

High-level hum and noise (ref. 15 Watts at 8 ohms): -79dB

Phono hum and noise: 1.5 μV equivalent input

Dynamic range (phono input to tape recording output): 96dB

I.M. Distortion (SMPTE), at rated power: 0.9%

Distortion decreases as output is lowered

Total Harmonic Distortion, at rated power: 0.9% Maximum

Distortion decreases as output is lowered

Power Bandwidth (IHF) for 0.9% THD: 15 Hz to 50,000 Hz

Damping Factor (ref. 8 ohms): Greater than 45

Frequency Response

Through phono: 1.0dB

Input Sensitivity (for 15 Watts at 8 ohms)

High level: 150 mV

Phono (1,000 Hz): 2.2 mV

Input Impedance

High-level: 100,000 ohms

Phono: 47,000 ohms

Channel Separation: 20 Hz to 20,000 Hz: 35 dB Minimum

FM SECTIONS:

IHF Usable Sensitivity: 3.0 μV

Selectivity: 50 dB

Noise Quieting: -60 dB at 1,000 μV

Total Harmonic Distortion, 400 Hz, 100% Mod: Mono: 0.2% Stereo: 0.5%

Frequency Response (ref. 75μ sec. de-emphasis): ±1 dB 50 Hz to 15 KHz

Stereo Separation: 1,000 Hz 40 dB

Sub Carrier (38 KHz) Suppression: 60 dB

GENERAL:

Power Requirements: 120 V AC

At rated output, both channels operating: 110 Watts

Idling Power (Volume Control at zero): 20 Watts

Dimensions

Panel Width: 14-11/64 Inches

Panel Height: 4-23/32 Inches

Depth: 11-1/32 Inches

Weight

Unit alone: 18 lbs

Packed for shipment: 23.6 lbs

These specifications and exterior designs may be changed for improvement without advance notice.